

CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the Application:

1. (Cancelled)
2. (Cancelled)
3. (Currently Amended) The apparatus of claim ~~[[2]]~~ 39 wherein said information needed to construct data network header information comprises a data network header field.
4. (Original) The apparatus of claim 3 wherein said data network header field comprises a destination data network address.
5. (Cancelled)
6. (Currently Amended) The apparatus of claim ~~[[5]]~~ 39 wherein said formatted information is transmitted after an acknowledgement has been received from said receiving station.
7. (Cancelled)
8. (Currently Amended) ~~The apparatus of claim 5,~~ An apparatus for reducing transmission overhead in a communication system, comprising:  
a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for transmitting information needed to construct data network header information at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information; and

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a transmitter for transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station,

wherein said processor is further for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting.

9. (Cancelled)

10. (Currently Amended) The system of claim [[9]]41 wherein said data origination message comprises said information needed to construct datagrams at said receiving station.

11. (Previously Presented) The system of claim 10 wherein said information needed to construct datagrams at said receiving station comprises a data network header field.

12. (Previously Presented) The system of claim 11 wherein said data network header field comprises a destination data network address.

13. (Cancelled)

14. (Currently Amended) The system of claim [[9]]41 further comprising:  
a data packet receiver for receiving datagrams from a device across said data network;

said second processor further for determining a second communication device for which said datagrams are intended, and for removing data network header information from said datagrams, and further for formatting said data network header- removed datagrams in accordance with a pre-determined data format, said pre-determined data format lacking said data network header information; and

a transmitter for transmitting said formatted information to said second communication device.

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15. (Previously Presented) The system of claim 14 wherein the second communication device is determined by comparing a second destination data network address provided by said datagrams from said device to a list of destination data network addresses in said storage device and retrieving a corresponding communication device identification code.

16. (Currently Amended) The system of claim ~~[[9]]~~41 wherein said second processor is further for generating a second data origination message comprising information indicating that a data communication is available.

17. (Previously Presented) The system of claim 16 wherein said second data origination message comprises information for allowing said communication device to decode said formatted information.

18. (Cancelled)

19. (Currently Amended) The method of claim ~~[[22]]~~43 wherein said data origination message comprises said information needed to construct datagrams at said receiving station.

20. (Previously Presented) The method of claim 19 wherein said information needed to construct datagrams at said receiving station comprises a data network header field.

21. (Previously Presented) The method of claim 20 wherein said data network header field comprises a destination data network address.

22. (Cancelled)

23. (Cancelled)

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24. (Cancelled)

25. (Currently Amended) The method of claim ~~[[22]]~~ 43 further comprising:

receiving said information needed to construct data network header information at said receiving station by said receiving station;

storing said information needed to construct data network header information at said receiving station in a storage device;

configuring a data packet generator to generate datagrams in accordance with said information needed to construct data network header information at said receiving station, each of said datagrams comprising one or more data network headers, said data network headers constructed using at least said information stored in said storage device;

receiving said formatted information from said communication device to be transmitted across said data network;

constructing datagrams in accordance with said data packet generator configuration; and

sending said datagrams across said data network to a destination data network address.

26. (Previously Presented) The method of claim 25 wherein said data origination message comprises said information needed to construct data network header information at said receiving station.

27. (Previously Presented) The method of claim 26 wherein said information needed to construct data network header information at said receiving station comprises a data network header field.

28. (Previously Presented) The method of claim 27 wherein said data network header field comprises said destination data network address.

29. (Cancelled)

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30. (Currently Amended) The method of claim ~~[[29]]~~44 further comprising transmitting an acknowledgement to said communication device after said data packet generator has been configured and before said formatted information is received.

31. (Cancelled)

32. (Previously Presented) The method of claim 35 wherein said data origination message comprises said information needed to construct datagrams at said receiving station.

33. (Previously Presented) The method of claim 32 wherein said information needed to construct datagrams at said receiving station comprises a data network header field.

34. (Previously Presented) The method of claim 33 wherein said data network header field comprises said destination data network address.

35. (Cancelled)

36. (Currently Amended) The system of claim ~~[[9]]~~41 wherein said formatted information is transmitted after an acknowledgement has been received from said receiving station.

37. (Currently Amended) The method of claim ~~[[22]]~~42 wherein said formatted information is transmitted after an acknowledgement has been received from said receiving station.

38. (Currently Amended) The method of claim ~~[[35]]~~45 wherein said formatted information is received after an acknowledgement has been transmitted to said communication device.

39. (Currently Amended) ~~The apparatus of claim 5,~~ An apparatus for reducing transmission overhead in a communication system, comprising:

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a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for transmitting information needed to construct data network header information at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

a transmitter for transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station,

wherein said formatting information includes formatting said information to at least one vocoder-like frames.

40. (Currently Amended) ~~The apparatus of claim 7,~~ An apparatus for reducing transmission overhead in a communication system, comprising:

a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for transmitting information needed to construct data network header information at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

a receiver for receiving an acknowledgement from said receiving station; and  
a transmitter for transmitting said formatted information, after receiving said acknowledgement, to said receiving station,

wherein said processor is further for removing said data network header information prior to formatting said information; and

wherein said formatting information includes formatting said information to at least one vocoder-like frames.

41. (Currently Amended) ~~The apparatus of claim 9,~~ A system for reducing transmission overhead in a communication system, comprising:

a communication device, comprising:

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a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for subsequently transmitting information needed to construct datagrams at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

a transceiver for transmitting said data origination message, said information needed to construct datagrams at said receiving station, and said formatted information to a receiving station, wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message; and

said receiving station, comprising:

a transceiver for receiving said information needed to construct datagrams at said receiving station and for providing said information needed to construct datagrams at said receiving station to a second processor;

said second processor for receiving said information needed to construct datagrams at said receiving station, for storing said information needed to construct datagrams at said receiving station in a storage device, and for configuring a data packet generator to generate datagrams to a destination data network address across a data network; and

said data packet generator for generating datagrams in accordance with at least one data network protocol, each of said data network protocols having a respective header associated with it, each of said headers comprising information obtained from at least said storage device; and

wherein said formatting information includes formatting said information to at least one vocoder-like frames.

42. (Currently Amended) ~~The method of claim 22,~~ A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

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transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted to said destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information

transmitting said formatted information to said receiving station; and

wherein said formatting information includes formatting said information to at least one vocoder-like frames.

43. (Currently Amended) ~~The method of claim 24,~~ A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted to a destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information;

receiving an acknowledgement from said receiving station; and

transmitting said formatted information to said receiving station after receiving said acknowledgement,

wherein said acknowledgement indicates that a data packet generator at said receiving station is configured for sending information to said destination device; and

wherein said formatting information includes formatting said information to at least one vocoder-like frames.

44. (Currently Amended) ~~The method of claim 29,~~ A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;



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transmitting information needed to construct datagrams at said receiving station;  
formatting information to be transmitted to said destination device in accordance  
with a pre-determined data format, said pre-determined data format lacking data network  
header information;

transmitting said formatted information to said receiving station,  
wherein said information needed to construct datagrams at said receiving station  
is transmitted in a data frame subsequent to said data origination message;

receiving said information needed to construct datagrams at said receiving station  
by said receiving station;

storing said information needed to construct datagrams at said receiving station in  
a storage device;

configuring a data packet generator to generate datagrams in accordance with said  
information needed to construct datagrams at said receiving station, each of said  
datagrams comprising one or more data network headers, said data network headers  
constructed using at least said information stored in said storage device;

receiving said formatted information from said communication device to be  
transmitted across said data network;

constructing datagrams in accordance with said data packet generator  
configuration;

sending said datagrams across said data network to a destination data network  
address; and

wherein said formatting information includes formatting said information to at  
least one vocoder-like frames.

45. (Currently Amended) ~~The method of claim 35,~~ A method for reducing  
transmission overhead in a communication system, comprising:

receiving a data origination message from a communication device, said data  
origination message initiating a data communication with a receiving station;

receiving information needed to construct datagrams at said receiving station;

storing said information needed to construct datagrams at said receiving station in  
a storage device;

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configuring a data packet generator for transmitting datagrams across a data network to a destination device, said datagrams formatting in accordance with at least one data network protocol, said datagrams each comprising at least one data network header, said at least one data network header formed from information stored in said storage device;

receiving formatted information from said communication device to be transmitted to said destination device, said formatted information lacking data network header information;

constructing datagrams in accordance with said data packet generator configuration;

transmitting said datagrams to said destination device across said data network;

wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message; and

wherein said formatted information includes at least one vocoder-like frames.

46. (New) An apparatus for reducing transmission overhead in a communication system, comprising:

means for generating a data origination message, said data origination message initiating a data communication with a receiving station;

means for transmitting information needed to construct data network header information at said receiving station;

means for formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

means for transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station; and

means for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting.

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47. (New) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information; and

transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station;

transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting.

48. (New) A computer-readable medium embodying means for implementing a method for reducing transmission overhead in a communication system, the method comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information; and

transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station;

transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting.

49. (New) An apparatus for reducing transmission overhead in a communication system, comprising:

a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for transmitting information needed to construct data network header information at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

a receiver for receiving an acknowledgement from said receiving station; and

a transmitter for transmitting said formatted information, after receiving said acknowledgement, to said receiving station,

wherein said processor is further for removing said data network header information prior to formatting said information; and

wherein said processor is further for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting.

50. (New) A system for reducing transmission overhead in a communication system, comprising:

a communication device, comprising:

a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for subsequently transmitting information needed to construct datagrams at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

a transceiver for transmitting said data origination message, said information needed to construct datagrams at said receiving station, and said formatted information to a receiving station, wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message; and

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said receiving station, comprising:

a transceiver for receiving said information needed to construct datagrams at said receiving station and for providing said information needed to construct datagrams at said receiving station to a second processor;

said second processor for receiving said information needed to construct datagrams at said receiving station, for storing said information needed to construct datagrams at said receiving station in a storage device, and for configuring a data packet generator to generate datagrams to a destination data network address across a data network; and

said data packet generator for generating datagrams in accordance with at least one data network protocol, each of said data network protocols having a respective header associated with it, each of said headers comprising information obtained from at least said storage device; and

wherein said processor is further for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting.

51. (New) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted to said destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information

transmitting said formatted information to said receiving station; and

wherein said transmitting comprises transmitting at least one full datagram to said receiving station, and removing said data network header information from subsequent datagrams prior to formatting.

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52. (New) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted to a destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information;

receiving an acknowledgement from said receiving station; and

transmitting said formatted information to said receiving station after receiving said acknowledgement,

wherein said acknowledgement indicates that a data packet generator at said receiving station is configured for sending information to said destination device; and

wherein said transmitting comprises transmitting at least one full datagram to said receiving station, and removing said data network header information from subsequent datagrams prior to formatting.

53. (New) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

transmitting information needed to construct datagrams at said receiving station;

formatting information to be transmitted to said destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information;

transmitting said formatted information to said receiving station,

wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message;

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receiving said information needed to construct datagrams at said receiving station by said receiving station;

storing said information needed to construct datagrams at said receiving station in a storage device;

configuring a data packet generator to generate datagrams in accordance with said information needed to construct datagrams at said receiving station, each of said datagrams comprising one or more data network headers, said data network headers constructed using at least said information stored in said storage device;

receiving said formatted information from said communication device to be transmitted across said data network;

constructing datagrams in accordance with said data packet generator configuration;

sending said datagrams across said data network to a destination data network address;

and

wherein said transmitting comprises transmitting at least one full datagram to said receiving station, and removing said data network header information from subsequent datagrams prior to formatting.

54. (New) A method for reducing transmission overhead in a communication system, comprising:

receiving a data origination message from a communication device, said data origination message initiating a data communication with a receiving station;

receiving information needed to construct datagrams at said receiving station;

storing said information needed to construct datagrams at said receiving station in a storage device;

configuring a data packet generator for transmitting datagrams across a data network to a destination device, said datagrams formatting in accordance with at least one data network protocol, said datagrams each comprising at least one data network header, said at least one data network header formed from information stored in said storage device;

receiving formatted information from said communication device to be transmitted to said destination device, said formatted information lacking data network header information;

constructing datagrams in accordance with said data packet generator configuration;

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transmitting said datagrams to said destination device across said data network;

wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message; and

wherein said receiving formatted information comprises receiving at least one full datagram, and said data network header information is removed from subsequent datagrams prior to formatting.